

Title (en)
ANTIGEN-SPECIFIC HELPER T-CELL RECEPTOR GENES

Title (de)
ANTIGENSPEZIFISCHE HELFER-T-ZELL-REZEPTORGENE

Title (fr)
GÈNES DU RÉCEPTEUR DES LYMPHOCYTES T AUXILIAIRES SPÉCIFIQUES DE L'ANTIGÈNE

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EP 18215510 A 20130912

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Abstract (en)
The present invention pertains to polynucleotides that encode CDR3 in TCR-[alpha] and TCR-[beta] chain genes of CD4helper T-cells that are specific to WT1 helper peptides having an amino acid sequence represented by SEQ ID NO: 123. The present invention further pertains to the peptides encoded by said polynucleotides. The present invention further pertains to CD4T cells into which TCR genes that contain said polynucleotides have been introduced, the induction of WT1-specific cytotoxic T-lymphocytes (CTLs) using the CD4T-cells, the treatment of cancer, etc.

IPC 8 full level
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Citation (applicant)
• WO 03106682 A1 20031224 - SUGIYAMA HARUO [JP], et al
• WO 2005095598 A1 20051013 - SUGIYAMA HARUO [JP]
• WO 2007097358 A1 20070830 - UNIV OSAKA [JP], et al
• JP 2007074146 W 20071214
• WO 2005045027 A1 20050519 - SUGIYAMA HARUO [JP]
• WO 2008105462 A1 20080904 - INT INST CANCER IMMUNOLOGY INC [JP], et al
• DANIEL A. HABER ET AL., CELL, vol. 61, no. 7, 29 June 1990 (1990-06-29), pages 1257 - 69
• CALL KM ET AL., CELL., vol. 60, no. 3, 9 February 1990 (1990-02-09), pages 509 - 20
• MENKE AL ET AL., INT REV CYTOL., vol. 181, 1998, pages 151 - 212
• YAMAGAMI T ET AL., BLOOD., vol. 87, no. 7, 1 April 1996 (1996-04-01), pages 2878 - 84
• INOUE K ET AL., BLOOD., vol. 91, no. 8, 15 April 1998 (1998-04-15), pages 2969 - 76
• TSUBOI A ET AL., LEUK RES., vol. 23, no. 5, May 1999 (1999-05-01), pages 499 - 505
• OKA Y ET AL., IMMUNOGENETICS., vol. 51, no. 2, February 2000 (2000-02-01), pages 99 - 107
• GAO FG ET AL., CANCER RES., vol. 62, 15 November 2002 (2002-11-15), pages 6438 - 41
• ZENG G, J IMMUNOTHER., vol. 24, no. 3, May 2001 (2001-05-01), pages 195 - 204
• KNIGHTS AJ ET AL., CANCER IMMUNOL IMMUNOTHER., vol. 51, no. 5, July 2002 (2002-07-01), pages 271 - 81

Citation (search report)
• [I] WO 2005056595 A2 20050623 - IMP COLLEGE INNOVATIONS LTD [GB], et al
• [Y] VOLLMER JOERG ET AL: "Dominance of the BV17 element in nickel-specific human T cell receptors relates to severity of contact sensitivity", EUROPEAN JOURNAL OF IMMUNOLOGY, vol. 27, no. 8, 1997, pages 1865 - 1874, XP002755552, ISSN: 0014-2980
• [Y] DATABASE EMBL [online] 18 July 1996 (1996-07-18), "Human isolate HR035 T cell receptor V-beta complementarity determining region 3 mRNA, partial cds.", XP002754147, retrieved from EBI accession no. EM_STD:U55105 Database accession no. U55105
• [Y] DATABASE Geneseq [online] 5 January 2012 (2012-01-05), "Human WT1 antigenic peptide epitope, SEQ ID:351.", XP002754148, retrieved from EBI accession no. GSP:AZP60910 Database accession no. AZP60910
• [Y] DATABASE EMBL [online] 14 October 1994 (1994-10-14), "Human T cell receptor alpha chain, V-J junctional region (TCR V alpha 8.2, J alpha 11) mRNA, partial cds.", XP002759504, retrieved from EBI accession no. EM_STD:U14043 Database accession no. U14043
• [Y] DATABASE EMBL [online] 26 September 2000 (2000-09-26), "Homo sapiens clone 09npa34 T cell receptor beta chain mRNA, partial cds.", XP002759505, retrieved from EBI accession no. EM_STD:AY006317 Database accession no. AY006317

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US 201314427465 A 20130912; US 201816163448 A 20181017; US 202017076842 A 20201022